

Appln No.: 09/932,914

Amendment Dated: December 17, 2003

Reply to Office Action of October 23, 2003

REMARKS/ARGUMENTS

This is in response to the Official Action mailed October 23, 2003 for the above-captioned application. Reconsideration of the application is respectfully requested.

An updated listing of claims is attached, which includes claim 25 that was inadvertently omitted from the listing with the prior amendment. Claim 25 has been cancelled.

The Examiner rejected claims 1, 6, 7, 9, 10 and 16-25 as anticipated by Ogoe et al (US Patent No. 5,663,280), Khouri (US Patent No. 6,423,768) or Nishihara (US Patent No. 6,454,969). In order to be anticipatory, a reference must disclose each and every element of the claim against which it is cited. The single cited reference "must unequivocally disclose the claimed [invention] or direct those skilled in the art to the claimed [invention] without any need for picking, choosing, and combining various disclosures not directly related to each other by the teachings of the cited reference." *In re Arkley*, 172 USPQ 524, 526 (CCPA 1972). Each of the references relied upon by the Examiner requires picking and choosing of specific components from lengthy lists, in a manner that is not guided by the reference itself. Accordingly, the rejections under § 102 for anticipation are improper.

Claim 1 recites:

A transparent, fire resistant, polycarbonate composition comprising: (a) a polycarbonate formulation, (b) a cyanoacrylate ester, and (c) a flame retardant selected from the group consisting of alkali metal salts of inorganic protonic acids, alkaline earth metal salts of inorganic protonic acids, alkali metal salts of organic Bronsted acids, and alkaline earth metal salts of organic Bronsted acids.

Ogoe discloses polycarbonate compositions. There is no disclosure that these compositions are transparent. In addition, the disclosure of cyanoacrylates is simply one of a long list of possible additives, and they are said to be useful as UV light stabilizers. Cyanoacrylates are not used in any of the specific examples. The Ogoe patent also discloses flame retardant components that include a phosphate ester, and **optionally** a flame retardant that is an alkali salt. There is no specific teaching to include cyanoacrylates when a decision is made to include the optional alkali metal salt. Thus, the Ogoe patent does not guide a person skilled in the art to the specific compositions now claimed and the anticipation rejection is in error.

With respect to claim 23, this claim recites:

A method to improve the flame retardance of a polycarbonate composition comprising polycarbonate and a flame retardant selected from the group

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consisting of alkali metal salts of inorganic protonic acids, alkaline earth metal salts of inorganic protonic acids, alkali metal salts of organic Bronsted acids, and alkaline earth metal salts of organic Bronsted acids, said method comprising adding to the polycarbonate composition or to a polycarbonate formulation from which the polycarbonate composition is produced an amount of a cyanoacrylic ester effective for improving the flame retardance of said polycarbonate composition relative to the flame retardance of the polycarbonate composition without the cyanoacrylic ester.

Nothing in Ogoe et al patent teaches such a method. The only reason provided for including a cyanoacrylate is as a UV stabilizer. Thus, there can be no anticipation.

In connection with this distinction, Applicants would like to bring to the Examiner's attention recent decisions of the Court of Appeals for the Federal Circuit regarding the significance of limitations such as those found in claim 23. In *Jansen v. Rexall Sundown Inc.*, 68 USPQ2d 1154 (Fed. Cir. 2003) and *Rapoport v. Dement*, 59 USPQ2d 1215 (Fed. Cir. 2001), the Court considered the importance of preamble language concerning the purpose or intent of a therapeutic treatment as distinguishing administration of the same composition for a different purpose or intent. In those cases, the preamble limitation of intent was found to be an effective limitation based on the recitation of the administration to a patient in need of the specified treatment. Here, the selection of the amount of cyanoacrylate is one that is sufficient to achieve the stated purpose, and the result is a product with greater flame retardance than would be achieved without the cyanoacrylate addition.

For these reasons, as well as the picking and choosing required as noted in connection with claim 1, Ogoe cannot be said to anticipate claim 23. The same holds for claim 24, which refers to a method to improve the weathering and flame retardance performance of a polycarbonate composition by addition of a cyanoacrylate. Thus, the anticipation rejection based on Ogoe should be withdrawn.

Khouri et al. relates to polymer organo-clay compositions. As in the case of Ogoe, there is no disclosure that the compositions are transparent. To reach the compositions of the present invention, one would have to specifically select polycarbonate from among a list of polymer types; choose to include an optional flame retardant, and the specifically select a flame retardant within the scope of the present claims from the long list of flame retardants; and choose to include a UV absorber, and then select a cyanoacrylate UV absorber from among multiple listed types. This amount of picking and choosing is inconsistent with an anticipation rejection. Furthermore, there is no teaching that addition of a cyanoacrylate to a composition containing polycarbonate and a flame retardant that is a salt of an acid will result in improved flame retardance. Thus, Khouri does not anticipate any of the rejected claims.

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Nishihara like the other references does not state that the compositions of the patent are transparent. To reach the compositions of the present invention, one would have to specifically select polycarbonate from among a list of polymer types; choose to include an optional flame retardant, and the specifically select a flame retardant within the scope of the present claims from the long list of flame retardants; and choose to include a UV absorber, and then select a cyanoacrylate UV absorber from among multiple listed types. This amount of picking and choosing is inconsistent with an anticipation rejection. Furthermore, there is no teaching that addition of a cyanoacrylate to a composition containing polycarbonate and a flame retardant that is a salt of an acid will result in improved flame reatrdance. Thus, Nishihara does not anticipate any of the rejected claims.

For these reasons, the rejections under 35 USC § 102 should be withdrawn.

Claims 1-25¹ are rejected as obvious over Ogoe, Khouri or Nishihara in view of Mark (US Patent No. 4,130,530), Rosenquist (US Patent No. 4,335,032), Sakashita et al. (US Patent No. 5,470,938), Weider et al (US Patent No. 5,693,697) Van Nuffel (US Patent No. 6,441,071) or General Electric (EP 0 675 159). Mark, Rosensquist and Weider describe the use of siloxanes in polymer formulations. Sakashita, VanNuffel and General Electric relate to the use of cyanoacrylates as UV absorbers in polymer formulations. The Examiner asserts that use of these materials in the formulations of the primary references would have been obvious. Applicants respectfully traverse this rejection.

The U.S. Court of Appeals for the Federal Circuit has stated that “[t]he mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification.” *In re Fritch*, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992) (citing *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984)). Although this statement is couched in terms of modifying the prior art, it is equally applicable to combining teachings found in the prior art. Specifically, the mere fact that teachings found in the prior art could be combined as proposed by an examiner does not make the combination obvious “absent some teaching, suggestion or incentive supporting the combination.” Carella, 804 F.2d at 140, 231 USPQ at 647 (citing ACS Hosp. Syss., Inc., 732 F.2d at 1577, 221 USPQ at 933).

In this case, what is required from the art, but lacking from both the art and the Examiner's argument is a teaching that would guide the person skilled in the art to make the specific formulation as claimed. As discussed above, there are significant choices necessary

¹ It is assumed that the Examiner intended to refer only to pending claims 1 and 6-24.

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from the teaching of the primary references to arrive at the claimed invention. Only after these choices are made can one consider whether using a different or specific cyanoacrylate or siloxane from one of the secondary reference would have been obvious. Since the art does not fairly suggest the specific compositions there is no *prima facie* case of obviousness.

Furthermore, when considering obviousness, the Examiner must take into account the properties of the claimed compositions. In this case, the compositions of the invention, which include cyanoacrylate (as opposed to some other type of conventional UV stabilizer) and a flame retardant in salt form have better flame retardance and better weatherability than the individual starting materials, and maintain transparency. This unexpected result precludes a conclusion of obviousness, since achieving flame retardance was evidently a goal of persons skilled in the art, yet the benefits of the specific combinations as claimed for achieving enhanced fire retardance were not recognized.

This unexpected benefit can be seen from a consideration of the examples in the present application. For example, on Page 12, it can be seen that Control 2, which contains a composition which is identical to the compositions of Inventive 1 and Inventive 2 except for the nature of the UV stabilizer, has by far inferior flame retardance. Cyasorb 5411 (not notwithstanding its trade name) is not a cyanoacrylate, but a benozotriazole, and produces very poor flame test results, which are worse than the Control 1 composition without UV stabilizer. In contrast, Uvinol 3039 and 3035, which are cyanoacrylic esters, produce better flame results than Control 1. The same type of results are observed in the table on Page 14, and 17.

Applicants further note that the Examiner has not addressed why the method of improving fire retardance by adding a specified type of UV stabilizer (a cyanoacrylate) would have been obvious over the cited references. No teaching nor suggestion that there is any enhancement to fire retardance is found in any of the references. Thus, the rejection of claims 23 and 24 is not supported by arguments or positions to which Applicants can reasonably respond. The rejection therefore is incomplete, and any maintained rejection of these claims should be in a non-final action with a complete explanation of the Examiner's reasoning.

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For the foregoing reasons, Applicants submit that all of the claims of this application are in form for allowance. Favorable reconsideration and allowance of all claims are respectfully urged.

Respectfully submitted,

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